1;Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukan

Tuiva informed the whole island, "Listen you to me, O the island. Kilika shall have charge of the back of the island, while I stay in the central island and the point of the island to protect it, so that no bad ideas grow." The people were to increase; the number of the men reached in the time of Tuiva to a thousand and one hundred. He also made as his old men's group, men crawling with age; they were old men. Thus it has come down to the time of light now; no other fight has arisen.

Obviously Tuiva was a hot-headed man, led astray by his excessive feelings for his children. Where their welfare was concerned he had no mercy on his brother. He was undoubtedly at fault in violating the tapu of the sacred enclosure, where Takitini had taken refuge, and Watumoana was quick to take the excuse to alarm men from Yato in an attempt to wipe out Tuiva and his supporters, and incidentally to secure the women of the island for themselves—a characteristic Pukapukan touch. However, kinship ties cut across ties based on village groupings. Tuiva was informed in advance of the plot against him and managed, with the aid of his supporters, to defeat and kill the Yato men. Those not killed in the fight committed suicide by having their relatives bury them alive, a not infrequently mentioned method of self-destruction.

Further White Contact

No further incidents are remembered of the regency of Tuiva. With the accession of Ikilua, the main chiefly line was resumed once more, coming down to the present day. Two voyages from Pukapuka to Samoa were made. Two further visits of European ships immediately before the coming of the missionaries are remembered. One was the visit of the Peruvian slave raiders about 1862 or 1863. The other was the visit of a white man's ship about 1850. It was named by the Pukapukans Te Vaka-o-lalangi.

When the ship was sighted, the canoes approached it, and after the coconut midrib *yiliyili* was kept by those aboard the vessel, the people went aboard to exchange goods. Each lineage tried to get as many European goods as possible in order to increase its prestige. Among the things obtained from this boat were ropes and iron objects, clothes (first called *kili langi* or *la kupenga*), and black tobacco leaf which they named *tutao* because it resembled the blackened oven covers removed from the native oven after the food is cooked.

One man, Kautoki of Muliwutu, saw an animal which he thought was a large rat, but which was a dog belonging to the captain of the vessel. Profiting by a diversion of interest and finding the dog opposite a swinging scupper, Kautoki pushed it through the scupper; it fell into his canoe moored beneath. The people in the canoe hid it under some mats. Kautoki jumped into the canoe and it sheered away. The captain missed his dog and, thinking it was in one of the canoes, picked up a gun and fired at them. At this all the people tumbled into their canoes and pushed away from the boat. One man, Yalewalu, was left on the boat. He jumped overboard but was hit by shot and wounded. He swam to a canoe and was hauled in. All the canoes began to paddle frantically to the reef, but still the boat's crew continued to fire on them. The canoe crews prayed to their gods to protect them, but one man, Malo by name, was killed by a shot, for he had broken a tapu and was therefore not protected by his god as were the others. The shots splashing up the water were followed by the people to shouts of

glehole and Beaglehole E-5 (1934-5) 1938 Pukapukans

fish scattering through the sea. When Malo was killed, a paddle was flashed in his canoe as a sign to the people crowded on the beach that misfortune had overtaken the canoes. The people then came out to the reef, and when the canoes had maneuvered through the landing channel, death chants were started and the body carried ashore.

The dog was looked on as a strange animal and created much interest. It was called *hiole* (rat) or *tupua* (animal) and became a sort of prestige symbol for Muliwutu lineage. It was taken to the principal god house and sacred enclosure of the lineage, given the best food that the island produced, and ornamented with leaves and flowers. The people of the lineage were never tired of boasting of their prowess and bravery in stealing this animal from the white man's boat. The dog was honored thus until it died of old age. Other lineages later tried to get strange objects as prestige symbols, but none were so sensationally successful as this Muliwutu "rat".

VOYAGING

The following summary accounts of canoe voyages away from Pukapuka are given for the light they throw on Pukapukan social customs and on early contact with other islands of the Pacific. It is inevitable perhaps that many of the places and islands named in these accounts can not be positively identified. Some of the lands visited, such as Witi (Fiji), Tonga, Niue, Yamoa (Samoa), Niutao, the Tokelau Islands, probably are the islands that have these names today, but other islands, such as Yayake, Yiva, Yake, must remain covered with the mists of obscurity. The accounts of these voyages establish the fact that the Pukapukans in the heyday of their navigation must have been as fearless sea rovers as their Polynesian cousins of other islands. The knowledge of astronomy that remains today shows that some of the remembered star courses were exceedingly accurate, and, given courage and reasonable good luck, there was every likelihood that Pukapukan sailors could and did reach distant islands.

The reasons for undertaking these sea voyages were: a desire for adventure, desire to visit the lands and peoples that traditions told them lay below the horizon in all directions; desire to bring back to Pukapuka useful stones that could better be used for implements than the soft coral rocks and shells of the native environment; desire to advance the prestige of one paternal lineage as against the others. Further, some voyages were made through necessity: through shame at some unpleasant experience, or through the virtual exile that awaited any Pukapukan man whose powers, whether physical or supernormal, made it seem to the populace that he might someday be led to use these powers to advance his own private, selfish, and anti-social interests against the interests of the group as a whole.

I think there is no reason to discredit the validity of these voyages simply because incidents that smack to us of the supernormal or the impossible, have crept into the accounts. Doubtless returning voyagers made the most of their exploits, and tall stories have found credence with the stay-at-homes in every age. But such stories are always woven into the context of actual fact. It is probably impossible today to separate imaginary adventures from

1:Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukan

123 real, but, after all allowance is made, the fact remains that the Pukapukans were daring voyagers, of which the following material is sufficient evidence.

The first voyage of which record still remains is that of Tu (captain) and Longo, who went with a crew in a single outrigger canoe:

These men sailed to the east to look for fresh lands and to increase the prestige of Ngake village. They took with them as stores, fish, cooked foods, talo and nuts, perhaps also fire. Fresh stores they procured from the islands visited. The first land they came to was Waiolanga. They placed an offering to their god on this island, setting up a stone around which they tied a coconut leaf. After a short stay, they went on to Waka-lava, a very large, long, mountainous land. Their star course to these two lands from Pukapuka was probably the Pleiades. They sailed farther east and came to Tongaleleva, then to Lua Maunga-wiwi, where two mountains, joined together at their tops, made a tunnel through which the canoe sailed. Their next landfall was Te Tawa-o-te-langi (Side-of-the-sky), where everything was beautiful, rocks, flowers, and trees particularly so. Here they sought to gather the beautiful things they saw about them and bring them back to Pukapuka to show the people. They filled up the canoe with all manner of things and put to sea, but before going far, the flowers had all wilted. They put back to land to gather more, but the flowers wilted again. A third time they gathered flowers, but again they turned to ugliness, so they sailed on without going back, visiting lands in every possible direction.

On their return to Pukapuka, they divided among the people of Ngake all the beauti ful things they had acquired. These were used for adorn. A few plants found in their canoe were planted but they were too dead to take root. Tu and Longo also taught the people their knowledge of strange lands, the star courses to reach them, the names of the winds that blow on the Ngake side. By some the two stars, α and β Centauri, are thought to refer to these two men under their names of Na Matu-o-te-tokalua (Eyes-of-the-pair).

The second voyage of early navigators was that of Tonu (captain) and Tana with a crew of Loto men. It is likely that this voyage represented a rival expedition, seeking to emulate or excel the voyage of the Ngake men.

The voyage of Tonu and Tana was made in the season of easterly winds, from April to October. The voyagers visited the island called Te Motu-tawua (identified by some as Fanning Island) and Te Pupaka-leva (perhaps one of the Equatorial Islands), both islands frequently mentioned in the legends as having excellent fishing grounds near by. Another island visited was Pa-lakawanga, termed Pule-titu in a second account because the people of this island burned on funeral pyres the bodies of their dead. At the place called Te Tawa-o-te-langi (Side-of-the-sky) the navigators tried to pick the flower called *tokelagi*, which is the same plant as that unsuccessfully gathered by the expedition of Tu and Longo. The voyagers came finally to Yayake where the attractiveness of the copulating pisces tempted them to settle for a time. Afraid, however, of the displeasure of their god, Atafaliki, they hurried back to Pukapuka and told the story of their adventures.

[174] Two voyages which informants thought were next in order nicely mix the improbable with a characteristic Pukapukan view of human nature:

Weki was a man rejected by women. His god took pity on him and made for Weki a coconut-leaflet canoe which quickly transported him to a land called Nuku-aumotoke (Island-of-many-vaginas) or Nuku-aumotoki (Island-smelling-of-vaginas), inhabited only by women. The women paid so much attention to Weki that he soon died, exhausted by their persistent attentions. Hence the saying in Pukapuka when a man

1:Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukans

173
484
171

has difficulty in obtaining a woman's favor: "Wano koe ki Nuku-nanutole" (Go you to Nuku-nanutole). Children at play sometimes fashion little make-believe canoes of coconut leaflets which they call *vaka o Welei* (canoes of Welei). The legend of a far-away island inhabited only by women recalls a similar legend reported from both Sikaiana and San Cristoval.

[626
558]

The voyage of Yawau indicates the intense power of the weapon of ridicule in a small community and the manner in which its unsparing use can drive a man to the most desperate straits. Yawau was a priest of Yamanga lineage. As the result of a fishing contest, the lineage was able to present Yawau with a large portion of *Rauttua* fish. Yawau ate heartily of this fish, but later when chanting to his god in the god house, the people noticed that he had defecated on the priest's seat. Yawau became ashamed of his mishap, especially as the children were wont to tease him about it. He fitted out a canoe and sailed away, seeking for a land where the people had not heard of his shame. But the people of Tokelau, of Samoa, of Fiji, and of many other islands welcomed him with ridicule and it was only after reaching the land called Kapiti-te-wue that Yawau was able to find a haven where he could settle down and live forever.

173
177
[484]

The journey of Wue, eighth chief of Pukapuka, made to the islands to the east and west of Pukapuka resulted in the introduction of many games with which the Pukapukans were not previously familiar. The account is a long one, telling of the adventures of Wue, his two sons, and his crew of Loto men at each of the islands visited.

By asserting that anything new he saw was a child's trick of no consequence in Pukapuka, Wue was able to steal swings from the people of Lakawanga, jackstone shells, the idea of coconut juggling, and kicking games from other islands, *tupe* discs from Wakalava. At only one island was Wue unsuccessful. At Motulau, the people played with a red feather which, when placed in the mouth turned the whole body a deep red color; when the feather was removed, the body turned brown again. In spite of all Wue's assumed indifference, people of Motulau valued the red feather too highly to allow him to take it and Wue could bring back to Pukapuka only a memory of the tantalizing feather. The remarks of Wue, the counter-remarks of the people of the islands he visited (all repeated the customary three times) and the tricks whereby Wue secured the things that interested him, are all considered highly amusing. The saying *Te Ngutu o Wue* (the mouth of Wue) is today applied to any one who exaggerates greatly or who obtains something from another by lies, beggary, simulation, or trickery.

173
484

The next voyages were those of Te Nana and Yi to Tonga, Niue, and Yayake. Informants thought they occurred in the reign of the chief Maina. But as this was after the seismic wave had more than decimated the population, it seems unlikely that there would have been enough energy left for long voyages of adventure and exploration. It is probable that these voyages belong to the era of Wue, being made perhaps after this explorer had returned to Pukapuka from one of his trips with his accounts of lands to the east and to the west.

173

Te Nana and Yi had each an outrigger canoe. Beyond the names mentioned in the narrative, other members of the crews are not remembered today. After leaving Pukapuka, the first landfall of the canoes was Te Motu-tuwua and Te Papakaleva. They fished in the lagoon in the middle of Te Motu-tuwua as all the other voyagers had done. They ate fish until they were satiated, which was soon, because they had no complement of taro. Then Te Vae-matua, one of Te Nana's crew, thought of the plan

1:Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukans

173 amount of talo grown in the reserve of Uta, hence the saying that is remembered to this day: "Te konga nei, koa kaina te tuli ngapia i Yayake" (This place reminds me that the talo beds of Yayake are only big enough to be devoured by *tuli* birds). After a long visit in Pukapuka and several trips back and forth between Wale and Na'au, Te Palo sewed his sail for the return journey to Yayake with the arm bone of Maiele, a demon that he had previously killed in Yayake. The goddess Tasa was so annoyed at this use of human bone which was tapu on Pukapuka that she infected Te Palo's armpit with a tumor to remind him of this fact on his way home. This visit of Te Palo is chiefly remembered for his adventures with Pukapukan women, the speed of his sailing canoe, and the tapu against the use of human bone.

173 [502] 484 As a general rule voyages made by members of Matanga lineage with their sacred maid in the canoe were safe. (See p. 239.) An exception to this rule is stated by informants to have taken place during the time of the chief Maina. But it must have been later, because it is further stated that about 7 to 10 canoes, containing in all about 100 persons from Matanga, composed the expedition, and there could not have been so many people in Matanga so soon after the devastating seismic wave. The captain of the expedition is not known, but it is remembered that the sacred maid of Matanga, Nokaulava, accompanied the fleet of canoes to give power (*wakamana*) to the sailing.

The fleet sailed from Pukapuka to the southwest and came up to a land called Tonga. Owing to the exhaustion of the crews it was necessary to land. The canoes were beached, but the people of Tonga rushed down upon the exhausted men and killed them all. Nokaulava had been hidden in the hole in the bow cover (*puoyo*) of the chief canoe when trouble threatened. She was found after the fight by the chief of Tonga, a man called Tautonga. He was struck by her beauty, and in order to save her life he hastily thrust her back into her hiding place and announced casually to the people that all the strangers had been well killed. He remained close to the canoe, guarding the girl until nightfall, when he secretly took her from her hiding place, and, carrying her over his shoulder, ran swiftly inland to the top of a mountain peak. Here he found a cave shelter for her and food in the near-by valley. He became enamoured with her beauty, and stayed with her for many moons, the people knowing nothing of her hiding place. The girl reciprocated his love, and soon was pregnant. Later she bore him a son named Moko, who rapidly grew up to be a sturdy lad.

She taught the boy the language and stories of Pukapuka, and all the wisdom of her atoll home that she could recall. Now and then she would ask the boy: "Taku tama e, ka ni o mo mea la langa ake te inu o to tama kainga?" (My child, have you yet the strength to prepare the oven—revenge—for our lineage?). The boy would not reply, but he kept the words close to his stomach. His mother saw this and was satisfied.

As the boy grew up, he trained himself in his solitariness with all kinds of trials of strength, lifting heavy rocks and tree trunks. His father saw this and was pleased. His mother was happy too, because she knew full well that his strength boded ill for her enemies. The boy climbed the highest mountain ridges and again his parents were surprised at the endurance and hardness of his body.

One day his mother took the boy aside, and told him the tragic fate of his people at the hands of the Tongans who lived by the shore. The boy wished to go to the coast to see these people. His mother allowed him to slip away from the mountain at night and he went to the shore, leaping from house ridge to house ridge, so that none would see him walking. Another time he went to the shore by daylight, stole a canoe and a pig, and paddled out onto the lagoon close to the villages. Then holding aloft the pig, he called out, "Look, you people of Tonga, can you do this?", and with his naked hands

1:Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukans

173 tore apart the pig. The people of Tonga were surprised at the young man, and asked, "Whence comes this young man?" Before they could launch a canoe to investigate, he slipped ashore and hid again in the mountains.

Some days later, the young man decided that the time had come for him to remember his mother's remarks and avenge his people. He gathered together many large rocks and boulders on the top of his mountain. Then he went down to the shore villages. He met a man close to one of the villages, wrestled with him, and tore him apart. He went into the villages and fought everyone he saw, tearing each apart with his hands. He did this until the breath came short in his body, and a formidable crowd of Tongans had gathered to fight him. He rushed inland, pursued by the Tongan warriors. He reached the top of his mountain far ahead of his enemies, and as they toiled up the slopes after him, he rolled down on them the boulders already prepared. His mother, excited at the slaughter of her enemies, urged him on to greater slaughter, but his father, appalled at the killing of his people, cried: "Stop, my son, the people of Tonga are now all finished." The boy finally desisted at the entreaties of his father.

Soon after this, his mother, being sick for sight of her native land, went with her son back to Pukapuka, where she told her lineage of the revenge. Her heart was with her husband, however, so after a short stay in Pukapuka both mother and son returned to Tonga and were welcomed back by the chief. They moved to another island, where they settled. The mother's heart was now glad to live in Tonga, for her blood was revenged on the Tongan people.

173 Before Nokaulava returned with her son to Pukapuka, an exploring
167 expedition had set out from Pukapuka to search for the missing people of
484 Matanga. This was a fleet of canoes from Muliwutu, also with about 100 men as crew. With α and β Centauri as their guiding stars, the fleet sailed to the southwest and finally reached Niue. They did not find the missing men of Matanga, but were apparently so well treated in Niue that most of them decided to stay there. A canoe came back from Niue to report the decision; nothing more was ever heard of the emigrants, and it is supposed that they settled down in Niue and intermarried with the people.

173 All the canoe voyages mentioned by informants were made to particular islands, except one which was meant to be an exploring expedition away from Pukapuka but which got no farther than within earshot of the land. This was a voyage projected by Tuliayanga when he was a young man and before he had succeeded to the chiefly title.

The boy was filled with the lust to travel, his imagination excited by returned travellers' accounts of strange lands below the horizon. His father, Maina, feared for his safety at sea, and refused at first to let him go. Tuliayanga insisted, so his father was forced in the end to allow him to fit out a canoe. When the boy set off, Maina prayed to his god requesting that his son be not allowed to see land anywhere but be made to travel only in a circle that would bring him back to Pukapuka. Tuliayanga sailed a first time, but the morning brought him back to Pukapuka. He sailed a second time, but on the fourth morning he was again in sight of Pukapuka. A third time he set off, and after sailing for several days he knew he was near land because he saw birds flying and thought he heard voices. But he saw no land no matter which way he sailed his canoe. After being at sea for several months, he sighted three islands. He came up to them quickly, with joy in his heart, for these were surely the new lands he had hunted these several moons. But when he came close he found it was only the three islands of Pukapuka to which his god had returned him once more. Tuliayanga was so disgusted with the weighting of the gods against him that he gave up deep-sea voyaging forever.

1:Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukans

173
167
484

Another voyage occurring about this time was that of a man named Palakula and members of his family who sailed away from Pukapuka. Palakula had killed the son of the chief Tuliayanga in a brawl provoked by cruelties of the chief's son to Palakula's children. He chose banishment rather than local punishment. Nothing more was heard of Palakula after he left Pukapuka. It is presumed that he and his crew were all drowned at sea.

Two later voyages were voyages of necessity, not choice. They were made in conformity with the Pukapukan custom that all men of supernormal powers should leave the island forever lest their continued presence on the atoll lead to their acquiring abnormal power over the people of the island.

173
[829]

Tuliayanga had three grandsons, all sons of his daughter, Kaipa. Their names were Nikau, Aliki, and Kieilu. Of Nikau, the oldest, no record is preserved, though it is known that he left Pukapuka. Aliki, the second son, early showed signs of precocious supernormal powers, so under the guise of a competition it was decided to test him. A group of men, all armed with sticks, the ends of which had been dipped in charcoal and water, surrounded Aliki and pretended to attack him. Aliki, also armed with a stick, defended himself against their blows; when the contest stopped, it was found that there was no trace of a black mark on his body. Then it was the turn of Aliki to dip his stick in charcoal. Again the men attacked him; when the contest paused a second time, it was found that each man had a black mark on his body, some on the ear, some on the hand, others on the leg, back or head. This was considered sufficient proof that Aliki had indeed supernormal powers, and he was ordered to leave Pukapuka.

Having fitted out his canoe, he sailed for many days to the west. His crew died of exposure, the sennit lashings of the canoe rotted, and the canoe fell to pieces just when he came in sight of land. He swam ashore and learned afterwards that the name of the island was Nistao (Ellice Islands). He feared the people of the island, so he hid by day and stole food by night. One morning before dawn, when he was hurrying back to his hiding place among the *ngaya* bushes by the shore, he met a young girl. She reported the encounter to her father, who watched for the stranger and after several attempts managed to catch him. The two men became friendly and when a tribal war later broke out on Nistao, Aliki rendered such signal service to the group of his protector that they were victorious. Aliki was adopted by the girl's father, married her, and lived on Nistao as a permanent settler. He taught the people of Nistao to wrestle and throw spears. This is why some believe that after the Pukapukans, the men of Nistao are the most skillful wrestlers and spear throwers in the Pacific.

Kieilu, the third grandson of Tuliayanga, was made cautious by the fate of his two brothers. Some time after they had left Pukapuka, Kieilu was challenged to a log-lifting contest by a man of Yamanaga, named Taluawa. Kieilu planned to be defeated in this contest, even though he could have won it easily. Kieilu lifted his log first, but no higher than his chest. Taluawa, careless of his strength, lifted the log with ease and held it above his head. The people saw this and feared his strength. They ordered him to fit his canoe and sail away to the west to find a new home. Taluawa asked his friend Kieilu to accompany him, but Kieilu replied that he was a land bird and had no liking for the sea. So Taluawa repaired his big double canoe and sailed away.

A few days after leaving Pukapuka, he ran into a heavy gale, with strong seas and winds, sent by the god of waterspouts and whirlwinds, Te Alongaua, in order to destroy him and his fellow adherents of the god Talitonganuku. The two gods had been fighting each other, and Talitonganuku had sent a shark which destroyed Tautuna, a man of Te Alongaua who had voyaged abroad. But Talitonganuku and his attendant spirits were on the watch, and when Te Alongaua sent his agents to overwhelm the canoe of

1½Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukan

173 Talauwa, the spirits caught hold of every cloud descending from the sky and shook it so hard that it fell to pieces. When the whirlwind came, Talitonganuku blew it away. When the rain came in squalls, Talitonganuku covered the canoe with his body and protected it from being filled and swamped. Then Talitonganuku said: "I have protected my men from every weapon of Te Alongaoa." But he had forgotten another weapon of Te Alongaoa, the sharks and fish of the sea, especially swordfish. While Talitonganuku and his spirits were fighting enemies of the air, Te Alongaoa sent his own spirits to gather all the fish and to send them round the canoe. They came to the canoe, and made the waves rough with their thrashing to and fro. The swordfish bored holes in the side of the canoe, and cut the lashing with his sword. Then Talitonganuku rushed to drive off the fish. This left the air unprotected, so Te Alongaoa gathered all the forces of the air for a final onslaught on the canoe. A tremendous storm came from every direction, and the canoe sank ever closer to the water. In spite of Talitonganuku's efforts, the swordfish cut the canoe to pieces, and speared each person on the canoe as he was thrown into the water; all were killed. Te Alongaoa was pleased that he had thus revenged his priest killed by Talitonganuku's shark.

The spirits of the dead returned to Pukapuka and told their living relatives in dreams what had befallen them. Thus is the story known today in Pukapuka. This was the last canoe that sailed from Pukapuka for many generations, because the people were afraid to venture on the ocean while the gods were fighting against each other, destroying all voyagers in their anger.

173 484 For five or six generations after this time, Pukapukan sea voyages were less frequent. Two short voyages to Samoa made after the coming of the missionaries to Pukapuka are worthy of mention:

[558] Yipouli was a Yato man, affiliated with Loto village, who was caught stealing nuts from Motu Kotawa. He was fined 10 nuts by the guard, but was so ashamed of being labeled a thief wherever he went that he gathered together a few friends and refitted his double canoe. One of the two canoes making the vessel was called Te Lava-yaunga, the other Yae-langi. The voyagers set out sailing by the star Melemele (Antares). They reached Tutuila, and later went on to Upolu where they settled down. Yipouli often wished to return to Pukapuka, but the thought of his shame always prevented him. He died in Samoa.

A little later, in the time of Okotai, second Rarotongan missionary to Pukapuka, about 60 years ago, Okotai's son, Ue, who had lived with his father previously in Samoa, decided he would like to return there. He discussed the matter with Pukapukan young men, stressing the good times that awaited the travelers in Samoa and the surpassing beauty of the Samoan women. Ten young men decided to join Ue in the venture. Saying they wished to go on a fishing trip to the Tima reef, they borrowed a canoe from a Yato man. The name of the canoe was Te Punga-i-Witi, the name also of a large canoe in Yato village today belonging to the son of the owner of the borrowed canoe. The young men prepared the canoe with the minimum of publicity. They went to Motu Kotawa and stole a cargo of nuts. Then they set sail on a course that brought them to Tutuila. The sea on the reef where they made a landfall was not bad, but instead of searching for a reef passage they decided to wreck the canoe, jump into the water, and swim ashore. They were unaware that the sharks of Samoa, unlike those of Pukapukan waters, were man-eating sharks. Of the ten men that left the canoe nine were eaten by sharks. Only one man, Yolomili, brother of the present chief, Nawasi, managed to climb on a rock and make his way ashore when the tide went out. He was cared for by a Samoan family and stayed in Samoa till his death, too ashamed to return to Pukapuka. Opinion is that the death of the young men was punishment sent by the old gods, at the request of the owner of the canoe, for the stealing of the canoe and the violation of the taps of the reserves.

1;Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukans

173
484

This disastrous voyage to Samoa is probably the last of the deep-sea voyages of the Pukapukans to foreign lands. Occasional fishing trips are still made to Tina reef, but there is no record in recent years of any deep-sea voyage with native canoes.

SUMMARY

A survey of the voyages recorded in the previous pages indicates that the majority were made to lands to the west of Pukapuka. The Tokelau Islands, Tonga, Niue, and Samoa were frequently visited. It is perhaps reasonable to assume that some of the other names mentioned refer to islands to the north of Pukapuka, the Equatorial Islands. The land of Yayake still remains a puzzle, not rendered more easily solvable by the reference to Rarotonga. As this land is identified by some as Tahiti, it may be instructive to discuss the possibility of canoe voyages between Pukapuka and Tahiti. I am indebted to Robert Dean Frisbie for the material on navigation in the following paragraphs:

502
487

The island of Raiatea may be used as a destination rather than Tahiti because it is closer to Pukapuka (940 miles) than is Tahiti (1080 miles), and it would be sighted by a canoe sailing direct from Pukapuka to Tahiti. The navigator's course to Raiatea from Pukapuka is 112° east southeast.

A canoe sailing from Pukapuka to Raiatea would require a light wind from northeast by north or farther north. No wind to the east of 32° would be serviceable because a native canoe at sea can not make good more than one point into the wind and if the wind blows at more than force 3 (Beaufort scale), the canoe can not make good a course closer than 90° to the wind. Winds from north of northeast blow in this part of the Pacific only during the hurricane season from November to March. At Pukapuka northerly winds are fairly steady and moderate, but to the eastward, these northerly winds give way to easterly winds. A wind shift to the north is generally followed by a gale from the northwest which a Polynesian canoe could not weather.

It would be practically impossible for a Pukapukan canoe to beat to Tahiti against a head wind. To do this, it could scarcely make more than 20 miles a day on a true course, and for this it would have to sail a little over 100 miles each day. A canoe beating towards Tahiti would be at sea for at least 47 days, changing the course continually as the wind shifted. If, at the end of this time, any island of the Society group was sighted, it would be due to singular luck and not design. No star course would be of value, for the canoe would be changing course continually. Even if a navigator knew by experience that a certain star at rising lies towards Tahiti, it would be impossible for him to shift his courses so that they would average one equal to the true star course.

All this does not discredit the fact that the early Pukapukan navigators could and did make long sea voyages with a fair or even a beam wind, short voyages also with a head wind if the wind was mild and the navigator was clever enough to keep track of his position. That the Pukapukans were well aware of the impossibility of long voyages against a head wind in the hurricane season is shown by the fact that when they sailed to Upolu from Pukapuka they had a fair wind; coming back to Pukapuka, they did not attempt to sail direct (against the wind), but sailed first to the Tokelau Islands,